

CLOCK GENERATION WITH CONTINUOUS PHASE

ABSTRACT

[060] A clock generation system includes an oscillator and one or more clock generators. The oscillator provides inphase and quadrature oscillator signals having a fixed frequency. Each clock generator receives the oscillator signals and generates a respective output clock signal. Within each clock generator, two weight generators receive two sequences of phase values and generate weights for two analog signals. Two signal generators multiply the inphase and quadrature oscillator signals with the weights from the two weight generators and provide the two analog signals having leading edges determined by the two sequences of phase values. A digital clock generator generates a DCLK signal based on the two analog signals. A divider divides the DCLK signal by N in frequency and provides the output clock signal. A phase generator generates the two sequences of phase values for the two analog signals based on a frequency control value and a phase offset value.